Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(original)   A combinatorial protein library comprising a plurality of protein species, each protein species comprising an A chain of a toxic protein into which an insert has been introduced, wherein,

(a)   the insert is a polypeptide of varying amino acid sequence having a length of at least 2 amino acid residues; and

(b)   the insert is introduced into the protease-sensitive loop of the A chain sequence.

2.(original)   The combinatorial protein library of claim 1, wherein the Horary comprises at least 100 protein species.

3.(currently amended)   The combinatorial protein library of claim 1 or 2, wherein the protein species are formed by introducing the insert into a Shiga-like toxin I A chain.

4.(original)   The combinatorial protein library of claim 3, wherein the protein species is formed by introducing the insert between amino acids 242 and 261, as defined with reference to Seq. ID No. 1.

5.(original)   The combinatorial protein library of claim 4, wherein the protein species is formed by introducing the insert between amino acids 245 and 246, as defined with reference to Seq. ID No. 1.

6.(original)   The combinatorial protein library of claim 3, wherein the protein species is formed by introducing the insert before or after amino acids 1-239 of the Shiga-like toxin I A chain, as defined with reference to Seq. ID No. I.

7. (currently amended)   The combinatorial protein library of ~~any preceding claim~~ claim 1, wherein the insert has a length of 7 amino acids.

8.(original)   A combinatorial expression library comprising a plurality of species of expression systems, each species expressing a protein species in accordance with ~~any of claims 1-7~~ claim 1.

9.(original)   A mutant protein comprising an A chain of a toxic protein into which an insert has been introduced, wherein,

(a) the insert is a polypeptide of varying, amino acid sequence having a length of at least 2 amino acid residues; and

(b) the insert is introduced into the protease-sensitive loop of the A chain sequence.

10.(original)   The mutant protein of claim 9, wherein the A chain of a toxic protein is a Shiga-like toxin 1 A chain.

11.(original)   The mutant protein of claim 10, wherein the insert in introduced between amino acids 242 and 261, as defined with reference to Seq. ID No. 1.

12.(original)   The mutant protein of claim 11 wherein the insert is introduced between amino acids 245 and 246, as defined with reference to Seq. ID No, 1.

13.(original)   The mutant protein of claim 12, wherein the insert comprises the sequence IYSNKLM (Seq. ID No. 6).

14.(original)   The mutant protein of claim 12, wherein the insert comprises the sequence AAFADLl (Seq. ID No. 7).

15.(original)   The mutant protein of claim 10, wherein the insert is introduced before or after amino acids 1-239 of the Shiga-like toxin 1 A chain, as defined with reference to Seq. ID No. 1.

16. (currently amended)   The mutant protein of ~~any of claims 9 to 15~~ claim 9, wherein the insert has a length of 7 amino acids.

17.(currently amended)   A method for identifying a ligand that bind to a specific target/receptor, comprising the steps of:

(a)   exposing cells known to possess the target/receptor to members of a combinatorial protein library in accordance with ~~any of claims 1 to 7~~ claim 1:

(b)   selecting members of the protein library which are observed to be toxic to the cells;

(c)   evaluating the selected members of the protein library to determine the sequence of the inserted region, whereby; a peptide of the sequence of the inserted region is identified as a possible ligand for a target/receptor on the cell; and

(d)   further testing peptides of the sequence of the inserted region to confirm that they are a ligand for the specific target/receptor.

18.(currently amended)   A method for isolating a toxin specific for a known target/receptor comprising the steps of:

(a)   exposing the target/receptor to a combinatorial protein library according to ~~any of claims 1 to 7~~ claim 1; and

(b)   isolating at least one protein species from the combinatorial protein library captured by binding to the target/receptor.

19.(original)   The method of claim 18, further comprising the step of screening the isolated protein against cells expressing the target/receptor, to confirm their toxicity for cells expressing the target/receptor.

20.(original)   The method of claim 18, wherein the target/receptor is a purified target/receptor and is immobilized on a solid support.

21.(original)   The method of claim 20, wherein the target/receptor is on the surface of cells.

22.(original)   The method of claim 21, wherein the cells are immobilized on a solid support.

23. (currently amended)   The method of claim 21 ~~or 22~~, wherein the toxin serves as a reporter, and the death of the cells is indicative of receptor binding.